

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION NO.

WAIVING WASTE DISCHARGE REQUIREMENTS
FOR
TEICHERT AGGREGATES MARYSVILLE
READY MIX CONCRETE PLANT
YUBA COUNTY

WHEREAS, California Water Code Section 13260(a) requires that any person discharging wastes or proposing to discharge wastes within the region that could affect the quality of waters of the State shall file a Report of Waste Discharge; and

WHEREAS, Teichert Aggregates (Discharger) submitted a Report of Waste Discharge (RWD) on 30 July 2004 for the collection, storage, and recycling of process wastewater at its planned ready mix plant, located at 4249 Hammonton-Smartville Road in Marysville, Yuba County. Subsequent information was received on 3 February 2005 and 11 March 2005; and

WHEREAS, solid waste and liquid waste will be generated during the washing of trucks used to transport the concrete, during the removal of waste concrete from trucks upon their return to the facility, and during the “rocking-out” of residual concrete from returning trucks; and

WHEREAS, the Discharger utilizes a process known as “rocking-out” to clean residual concrete from concrete trucks returning to the facility at the end of the work day. “Rocking-out” consists of introducing approximately one cubic yard of gravel/cobble material into the concrete drum, rotating the drum, and removing the “rock-out” material; and

WHEREAS, California Water Code (CWC) Section 13173(b) defines designated waste as: *“Nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan.”* and

WHEREAS, Title 27 of the California Code of Regulations (CCR) (Title 27) sets forth regulations for management of designated waste. Unless the facility or activity that generates designated waste is exempt from those regulations, any waste management unit used to treat, store, or dispose of designated waste must:

- a. Be sited, designed, and constructed in accordance with the applicable performance and minimum prescriptive standards contained therein;
- b. Monitored to detect any releases to soil or groundwater (e.g., groundwater monitoring is required);
- c. Have an approved closure and post-closure maintenance plan that includes groundwater monitoring for at least thirty years after final closure;

- d. Provide financial assurance that funds will be available to finance closure and post-closure maintenance and monitoring; and

WHEREAS, ready-mix concrete facilities blend aggregates, Portland cement, water, and chemical admixtures to create Portland cement concrete. Based on analytical testing of concrete wastewater samples obtained by Regional Board staff from ten ready-mix plants in late 2002, concrete wastewater exhibits the characteristics listed below. This data indicates that concrete wastewater and solid waste generated at concrete batch plants have the potential to be classified as designated waste; and

Parameter	Units	Concentration Range	Applicable Water Quality Limit ²
PH	--	7.7 to 12.6	6.5 to 8.4
Total Dissolved Solids			
Aluminum	mg/L	160 to 2,600	450
Boron	ug/L	76 to 310 ¹	200
Chromium, total	ug/L	2,900 ¹	700
Chromium, hexavalent	ug/L	53 to 280 ¹	50
Manganese	ug/l	1.4 to 260 ¹	21 ³
Molybdenum	ug/L	25 to 1,900	50
Sodium	mg/L	10 to 300 ¹	10
Vanadium	ug/L	1.3 to 180	69
		26 to 160 ¹	50

1 Analytical data for filtered samples and represent dissolved concentrations.

2 The water quality limits cited herein are numeric limits selected to apply the narrative water quality objectives for groundwater set forth in the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins for protection of the beneficial uses of groundwater. These limits have been selected in accordance with the procedure set forth in that Basin Plan.

3 This limit assumes a 20% relative source contribution, which may not be valid. The California Office of Environmental Health Hazard Assessment is currently developing a Public Health Goal for Chromium VI. Discussions with OEHHA staff indicate that the future PHG is likely to be lower than this value.

WHEREAS, the Discharger collected one sample of stormwater runoff from the “rock-out” material to determine whether that material is a designated waste, and the data generated was inadequate to assess whether or not the solid waste generated at the facility will be a designated waste; and

WHEREAS, the Discharger has not demonstrated that the solid waste or its associated liquid waste that will be generated at the facility is not designated waste; and

WHEREAS, Title 27 exempts certain activities from its provisions under Section 20090 which states, in part:

“The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

...(i) Fully Enclosed Units--Waste treatment in fully enclosed facilities, such as tanks, or in concrete-lined facilities of limited areal extent, such as oil-water separators designed, constructed, and operated according to American Petroleum Institute specification;” and

WHEREAS, this waiver is applicable to the discharges of designated waste liquid to fully enclosed tanks and concrete-lined sumps of limited aerial extent for the purpose of temporary storage and/or recycling provided that the system is designed, constructed, and operated in accordance with certain standards so that the activity can be deemed exempt pursuant to Title 27 Section 20090(i). The facility will be constructed to have a wash pad designed specifically to collect the wastewater and convey it to the sump/tank system. The facility is also designed to have a solid waste storage pad to store solid concrete waste generated on the site, and to collect and store liquid waste and stormwater runoff generated from the solid waste. Neither the wash pad nor the solid waste storage pad has yet been constructed. Once constructed, the wash pad and solid waste storage pad and their associated sumps would be considered part of the waste management unit; and

WHEREAS, on 7 February 1996, in accordance with the California Environmental Quality Act (Title 14, CCR, section 15261 et seq), the Yuba County Planning Commission certified the Final Environmental Impact Report for the Teichert Marysville facility, which was described as potentially containing a ready-mix concrete plant; and

WHEREAS, all truck wash water will be recycled into concrete batch plant product; and

WHEREAS, all process solid waste material and associated liquid waste, including sump sediment, waste concrete removed from concrete trucks returning to the facility, and “rock-out” material used to clean out residual concrete from returning trucks can either be recycled into concrete batch plant product or disposed of at an authorized off-site solid waste disposal facility approved by the Executive Officer; and

WHEREAS, during the rainy season, when the plant is not in operation, the truck wash pad and slot drain entering the sump will be thoroughly cleaned of all visible debris at the end of every workday by washing all sediment into the sumps. Following this cleaning, a slide gate will be closed to block the slot drain entrance into the sumps, allowing stormwater runoff from the wash pad onto the surrounding ground surface, which will be sloped away from the pad to prevent ponding; and

WHEREAS, the Discharger proposes to temporarily store and recycle all wastewater generated at the truck wash pad in two concrete sumps and an above ground storage tank. The sumps will have a working capacity of approximately 6,300 gallons. A 10,000-gallon above ground storage tank has been installed; and

WHEREAS, the preliminary design for the solid waste storage pad includes an engineered sump that would have a capacity of 7,980 gallons with one foot of freeboard. The liquid waste collected in the sump would be pumped to the 10,000-gallon storage tank, prior to recycling it into the batch plant; and

WHEREAS, the facility is designed such that the truck wash pad and solid waste storage pad drain back into the concrete settling sumps; and

WHEREAS, the Discharger has submitted an acceptable Construction Quality Assurance (CQA) plan; and

WHEREAS, staff have prepared General Waste Discharge Requirements (WDRs) for those discharges of designated waste that are exempt from Title 27 under Section 20090 (i). This tentative Order is currently undergoing public review. This Waiver Resolution contains the same requirements as the tentative General WDRs, and is intended to allow this particular Discharger to begin operation prior to adoption of the General WDRs; and

WHEREAS, the Regional Water Quality Control Board, Central Valley Region (hereafter Regional Board) has a statutory obligation to prescribe waste discharge requirements except where a waiver is not against the public interest; and

WHEREAS, the Regional Board has determined that due to the limited nature and duration of the discharge allowed under this Resolution, the discharge poses little or no threat to water quality. This Waiver Resolution will expire upon enrollment of the Discharger under the General WDRs referenced above; and

WHEREAS, the Regional Board held a hearing on _____ 2005 and considered all evidence concerning this matter:

RESOLVED, that the California Regional Water Quality Control Board, Central Valley Region, waives waste discharge requirements for the Teichert Aggregates Marysville concrete ready mix batch plant, subject to the following conditions:

Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as "hazardous" as defined in 27 CCR Section 20164 is prohibited.
3. Bypass or overflow of waste is prohibited from the designated collection pads, sumps, or storage tanks, except stormwater runoff from the truck wash pad during the rainy season, when the plant is not in operation, and after the truck wash pad and slot drain entering the

sump have been thoroughly cleaned of all visible debris by washing all sediment into the sumps.

4. Discharge of designated waste other than to the designated storage and/or recycling system, or to an appropriately permitted off-site treatment/storage/disposal facility approved by the Executive Officer is prohibited. The Discharger shall obtain receipts for any transported waste from the hauler and the receiving facility.
5. Discharge of domestic wastewater to the designated waste storage and/or recycling system is prohibited.

Liquid Waste Discharge Specifications

1. All wastewater, except that demonstrated to be non-designated waste, must be contained in a concrete sump or storage tank in such a manner that the wastewater does not contact the ground.
2. Wastewater shall be removed from sumps and storage tanks before capacity is reached, and may be removed by either a contracted waste hauler or by the Discharger.
3. Any wastewater removed from the facility for disposal shall be discharged to an appropriately permitted treatment/storage/disposal facility. The Discharger shall obtain receipts for the transported waste from the licensed hauler and the receiving facility.
4. Neither the treatment nor the discharge of waste shall cause a condition of nuisance or pollution as defined by CWC Section 13050.
5. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations.
6. Objectionable odors originating at the facility shall not be perceivable beyond the limits of the property owned by the Discharger.
7. All treatment, storage, and disposal facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
8. Sumps and tanks shall be managed to prevent breeding of mosquitoes. In particular, algae, vegetation, scum, and debris shall not accumulate on the water surface.

9. The waste management unit shall have sufficient storage to accommodate allowable wastewater flow and the applicable design seasonal precipitation in accordance with the criteria set forth in the Design and Construction Standards of this waiver.
10. Freeboard in any sump or tank shall never be less than one foot as measured from the water surface to the lowest point of overflow.

Residual Solid Waste Handling and Storage

1. The handling, storage, and disposal of concrete process residual solids shall be conducted in a manner consistent with that provided in the RWD, and/or that shall be provided in plans required by this waiver and approved by the Executive Officer.
2. Solids removed from designated waste liquids may be dried (if desired) and stored on the solid waste storage pad and in the manner described in the RWD, and such that any leachate is collected and discharged to an approved sump or tank to which this Waiver applies.
3. Solids drying and/or storage areas shall be designed, constructed, operated, and maintained to prevent the washout or inundation due to floods with a 100-year return frequency.
4. Neither the storage nor the disposal of residual solids waste shall result in nuisance conditions, including odors, storm water impacts, or groundwater impacts.
5. Any residual solids removed from the waste management unit for disposal shall be recycled or discharged at an appropriately permitted off-site disposal facility. If solids are disposed of off-site, the Discharger shall obtain receipts for the transported waste from the licensed hauler and the receiving facility.

Groundwater Limitations

1. The discharge of waste shall not cause the underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality.

Design and Construction Standards

1. All sumps and tanks shall be engineered to completely contain all liquids and shall be designed to provide at least one foot of freeboard at all times.
2. All sump and tank systems shall be designed to provide sufficient storage and disposal capacity to accommodate allowable wastewater flow, direct precipitation, and runoff from tributary paved areas during the following design precipitation events:

- a. The total annual precipitation using a return period of 100 years (i.e., the 365-day, 100 year event), distributed monthly in accordance with historical rainfall patterns;
 - b. The 100-year, 24-hour storm event.
3. Wash pads and paved areas shall be sloped to provide positive drainage toward the sump or tank conveyance system and to minimize the depth and duration of ponding on the pavement surface.
4. Wash pads and paved areas shall be equipped with curbs to control runoff containing waste constituents.
5. Pipe penetrations and other intentional openings through wash pads and paved wastewater collection areas shall be minimized and properly sealed.
6. Watertight liners beneath concrete sumps and pavement shall consist of flexible membrane liner (FML, or geomembrane) manufactured, selected, designed, and installed to be
 - a. Functionally impervious to the waste to be contained
 - b. Resistant to puncture, tearing, abrasion, or seaming melt-through damage during construction activities and expected service conditions; and
 - c. Resistant to deterioration to due expected environmental conditions (e.g., oxidation, UV radiation, temperature extremes).
7. Sealants used to fill or caulk cracks, gaps, and expansion joints shall be manufactured, selected, designed, and installed to adhere to the concrete to form an impervious seal.
8. Coatings used to seal concrete pads and sumps shall be manufactured, selected, designed, and installed to be
 - i. Functionally impervious to the waste to be contained;
 - ii. Completely adhered to the underlying concrete;
 - iii. Resistant to puncture, tearing, or abrasion damage due to construction activities and expected service conditions; and
 - iv. Resistant to damage to due expected environmental conditions (e.g., oxidation, UV radiation, temperature extremes).
9. Leak detection systems shall consist of a permeable material such as sand or gravel or geocomposite such as geonet. Leak detection systems shall be placed to monitor the entire footprint of the sump, and shall be designed and constructed to convey water that percolates through the concrete to one or more observation/sampling points.

10. The proposed truck wash pad and solid waste storage pad shall be constructed, inspected, and tested in accordance with the Construction Quality Assurance (CQA) Plan submitted with the RWD.

Provisions

1. At least **30 days** prior to construction, the Discharger shall submit a *Solid Waste Storage Pad Final Design Report*. The report shall contain a description of the solid waste pad, the sump, the liner, and the leak detection system, and the final design drawings, which show compliance with this Resolution. The report shall also include a water balance that demonstrates that the sump and storage tank provide sufficient storage and disposal capacity to accommodate allowable wastewater flow, direct precipitation, and runoff from tributary paved areas during the following design precipitation events:
 - a. The total annual precipitation using a return period of 100 years (i.e., the 365-day, 100-year event), distributed monthly in accordance with historical rainfall patterns;
 - b. The 100-year, 24-hour storm event.
2. At least **30 days** prior to proposed operation, the Discharger shall submit a technical report certifying that both the truck wash and associated liquid waste containment system and the solid waste pad and associated liquid waste containment system covered in this waiver has been constructed, inspected, and tested in accordance with the CQA plan, the waiver requirements, and the approved *Solid Waste Storage Pad Final Design Report*.
3. The Discharger shall comply with the monitoring and reporting requirements prescribed in the attached (Attachment A) Monitoring and Reporting Program.

RESOLVED, upon submittal of the technical reports described in Provision No. 1 and 2 above, and upon written approval by the Executive Officer, the Discharger may begin discharging and recycling wastewater and solid waste in compliance with this Resolution.

RESOLVED, upon signature of a Notice of Applicability by the Executive Officer for coverage under *General Waste Discharge Requirements for Temporary Storage and Recycling of Designated Waste Liquids in Fully Enclosed Units*, Waiver Resolution No. _____ will be rescinded.

RESOLVED, that this action waving waste discharge requirements is conditional and may be terminated at any time.

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YUBA COUNTY

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I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a true, full, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on XX April 2005.

THOMAS R. PINKOS, Executive Officer

Attachments: A- Monitoring and Reporting Program